

CLAIMS:

Sub 2' 1. A composition including a first nucleic acid construct in which expression of a first gene is controlled by a first promoter whose function is suppressed in non-tumour cells, and a second nucleic acid construct in which expression of a second gene for down-regulating the first gene in non-tumour cells is controlled by a second promoter that is up-regulated in non-tumour cells.

2. A composition according to claim 1 wherein expression of said second gene produces an antisense RNA transcript complementary to a sequence within mRNA produced on transcription of said first gene.

3. A composition according to claim 1 wherein expression of said second gene produces a ribozyme specific for a sequence within mRNA produced on transcription of said first gene.

4. A composition according to claim 1 wherein expression of said second gene produces a sequence-specific transcriptional suppressor and said first nucleic acid construct includes a binding site sequence for the suppressor.

5. A composition according to claim 4 wherein said sequence-specific transcriptional suppressor is a lac

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operator suppressor.

6. A composition according to claim 4 wherein said
sequence-specific transcriptional suppressor includes a
5 tet repressor DNA-binding domain and a suppression domain
of the *Drosophila* KRAB transcription factor.

7. A composition according to claim 4 wherein said
sequence-specific transcriptional suppressor includes a
10 Gal-4 DNA-binding domain and a suppression domain of the
Drosophila even-skipped transcription factor.

8. A composition according to any preceding claim
wherein said first nucleic acid construct and said second
15 nucleic acid construct are each on separate nucleic acid
vectors.

9. A composition according to any of claims 1 to 8
wherein said first nucleic acid construct and said second
20 nucleic acid construct are on the same nucleic acid
vector.

10. A composition according to claim 9 including an
insulator sequence between said first nucleic acid
25 construct and said second nucleic acid construct.

11. A composition according to claim 9 or claim 10
wherein a said nucleic acid vector is a viral vector.

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12. A composition according to any of the preceding claims wherein said second nucleic acid construct includes a p53 binding site sequence or CMB promoter.
- 5 13. A composition according to claim 12 wherein said second nucleic acid construct includes said p53 binding site sequence downstream of a TATA Box and transcriptional start site of the second promoter.
- 10 14. A composition according to any preceding claim wherein said first promoter is up-regulated in tumour cells.
- 15 15. A composition according to claim 14 wherein said first promoter is the HSP70 promoter.
16. A composition according to any preceding claim wherein said first gene is a reporter gene.
- 20 17. A composition according to any of claims 1 to 15 wherein said first gene encodes an antitumour agent.
18. A composition according to claim 17 wherein said antitumour agent is a pro-drug activating enzyme.
- 25 19. A composition according to claim 13 wherein said pro-drug activating enzyme is a thymidine kinase.

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5 21. A cell according to claim 20 which ~~is~~ a tumour cell.

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15 24. A method according to claim 22 or claim 23 wherein
said introduction takes place in vitro.

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